Remarks

Original Claims 1-42 are currently pending in this application.

Rejections under 35 USC §103

5   **Claims 1-9 and 11-42 are rejected under 35 U.S.C. 103 as being unpatentable over Fletcher et al. (USPN: 2002/0178238), hereinafter Fletcher, in view of Singh et al. (USPN: 2004/0013113), hereinafter Singh.**

In the Examiner Interview of October 3, 2006 the Examiner and the Applicant's representative agreed that Singh could not properly be combined with Fletcher because

10   Singh explicitly taught away from the proposed combination. Based on this agreement, the Applicant looks forward to the withdrawal of the rejections under 35 USC 103(a) that were made in view of Singh.

It is the position of the Applicant that, based on the admission that Singh and Fletcher cannot be properly combined, the finality of the current Office Action is

15   improper and should be withdrawn.

Further, it is the position of the Applicant that the finality of the current Office Action is improper because arguments made by the Applicant in the Response to Office Action filed May 12, 2006 were not responded to by the Examiner in the Final Office Action. Pursuant to MPEP §706.07, "where a single previous Office Action contains a

20   complete statement of a ground of rejection, the final rejection may refer to such a statement and also *should include a rebuttal of any arguments raised in the applicant's reply.*" The Final Office action does not include rebuttal of arguments raised and is, therefore, improper. Some, but not all, of these arguments are presented again below.

At page 20 of the Response to Office Action filed May 12, 2006, the Applicant argued:

> Claim 39 includes the limitation *"the answer cache and the referral cache have different data structures."* This limitation is not found in Claim 1 and is not addressed by the Examiner. As stated in *Diamond v. Diehr*, "[w]hen evaluating the scope of a claim, <u>every</u> limitation in the claim must be considered," (MPEP § 2106.II.C). It is, therefore, the position of the Applicant that the Examiner has not presented a *prima facie* case for the rejection of Claim 39. The Applicant requests that the Examiner specifically point out teachings of all of the limitations of Claim 39 in the cited art, or allow Claim 39.

The Examiner does not appear to have responded to these arguments in the Final Office Action. As these arguments do not depend on Singh, the Applicant requests that Examiner respond to these arguments in any subsequent rejection.

At page 21 of the Response to Office Action Filed May 12, 2006, the Applicant argued:

> The Examiner rejects Claim 19 on the same rationale as the rejection of Claims 1 and 2. However, it is the Applicant's position that the Examiner has not pointed out teaching of *"examining an ... answer cache including a hash table"* in combination with *"searching a tree data structure if the DNS information is not found by examining the answer cache,"* as recited in Claim 19. As discussed above in reference to Claim 1, the cited art does not appear to teach an examination of *"an answer cache"* in addition to a separate search. Therefore, the cited art does not teach, *"examining an answer cache"* in combination with *"searching a tree data structure."* Likewise, as discussed above in reference to Claim 17, the cited art does not appear to teach both a first data structure and a second data structure. Therefore, the cited art does not teach both an *"answer cache including a hash table"* and *"a tree data structure."*
>
> Further, it is the position of the Applicant that Fletcher does not teach an answer cache including a *"hash table"* in combination with a *"tree data structure"* that is searched *"if DNS information is not found by examining the answer cache."* In paragraph [0030], Fletcher does teach that a "referral" is issued if "requested data" is not found in a query. However, assuming for the sake of argument that the query of paragraph [0030] teaches "examining an answer cache", the Applicant is unable to find any teaching (specific or inherent) within either Fletcher or Singh that issuing a "referral" involves *"searching a tree data structure,"* as recited in Claim 19. The Applicant, therefore, requests that the Examiner specifically point out these and the other limitations of Claim 19, or allow Claim 19, and those claims that depend therefrom.

The Examiner does not appear to have responded to these arguments in the Final Office Action. As these arguments do not depend on Singh, the Applicant requests that Examiner respond to these arguments in any subsequent rejection.

5   At page 24 of the Response to Office Action Filed May 12, 2006, the Applicant argued:

> Claim 5 further includes the limitations that *"the tree data structure is include in the referral cache."* The Examiner does not appear to address these limitations. The Applicant therefore requests that the Examiner specifically point out
> 10   teachings within the cited art of a *"flat data structure"* through which *"answer information is accessed"* and that *"includes pointers to a tree data structure ... included in the referral cache"* or allow Claim 5.

The Examiner does not appear to have responded to these arguments in the Final Office

15   Action. As these arguments do not depend on Singh, the Applicant requests that Examiner respond to these arguments in any subsequent rejection.

At page 25 of the Response to Office Action Filed May 12, 2006, the Applicant argued:

> Claim 23, includes the additional limitations that *"the tree data structure*
> 20   *is configured to store pointers to referral data."* The Examiner does not appear to address these limitations. The Applicant, therefore, requests that the Examiner specifically address these limitations, or allow Claim 23.

and
25

> In rejecting Claim 4, the Examiner states "Hudson [Fletcher] teaches that the tree data structure (i.e. the hierarchical structure) is configured to store answer information and referral information (e.g. see paragraphs [0005]-[0006])." The Applicant traverses this statement.
> 30   First, while paragraph [0005] does refer to a "hierarchical structure," this reference is a characterization of a relationship between servers and not to a hierarchical data structure, much less a *"tree data structure"* as recited in Claim 4. The text cited by the Examiner teaches, "[t]he distributed database is implemented by storing various portions of the database across multiple servers in a
> 35   hierarchical structure." This structure includes "root" servers, "authoritative" servers, and "non-authoritative" servers, as would be understood by one of

ordinary skill in the art. A *"hierarchical data structure,"* as recited in Claim 8 is, therefore, not taught in the text cited by the Examiner.

Second, a *"tree data structure"* cannot be inferred from a "hierarchical structure." There are hierarchical structures that are not "tree data structure[s]" (e.g., a linear hierarchical structure) and thus, the limitations of Claim 4 would not "necessarily flow" from a teaching of a hierarchical data structure, even if such a data structure were taught in the cited art. The Applicant, therefore, requests that the Examiner specifically point out the limitations of Claim 4 within the cited art, or allow Claim 4.

The Examiner does not appear to have responded to these arguments in the Final Office

Action. As these arguments do not depend on Singh, the Applicant requests that

Examiner respond to these arguments in any subsequent rejection.

At pages 26-27 of the Response to Office Action Filed May 12, 2006, the

Applicant argued:

> With regard to Claim 6, the Examiner states "Hudson [Fletcher] teaches that the caching server (i.e. the name server, 101 Fig. 1) is also an authoritative server, i.e. a server which has the desired information (e.g. see Fig. 1)." The Applicant traverses the Examiner's definition of "authoritative server." It is the position of the Applicant that a person of ordinary skill in the art would not define "authoritative server" as merely "a server which has the desired information," as suggested by the Examiner. To the contrary, a non-authoritative server may also have such information. For example, further characterizations of the term "authoritative server" include:
>
> > There are two common types of DNS servers: the Authoritative DNS Name Server and The Non-Authoritative DNS Name Caching Server. ... An Authoritative DNS server is the authoritative source for all DNS requests made for a designated zone or domain. (http://www.more.net/technical/dns/overview.html)
>
> Thus, the Applicant is unable to find any teaching within the cited art that the server of Fletcher is an authoritative server rather than a non-authoritative server. The Applicant, therefore, requests that the Examiner provide support for the suggestion that a teaching of "a server which has the desired information" teaches an *"authoritative server,"* as recited in Claim 6, or allow Claim 6.

The Examiner does not appear to have responded to these arguments in the Final Office

Action. As these arguments do not depend on Singh, the Applicant requests that

Examiner respond to these arguments in any subsequent rejection.

At pages 29 and 30 of the Response to Office Action Filed May 12, 2006, the

5   Applicant argued:

> In reference to Claim 33, the Examiner states "Fletcher teaches ...
> classifying the response received, and storing the data received in either a referral
> cache or an answer cache based on the classification (e.g. see paragraphs [0005]
> and [0008])." The Applicant traverses this statement.

10   First, it is unclear to the Applicant which parts of Fletcher are thought by
> the Examiner to teach, "*classifying the response received.*" Neither paragraphs
> [0005] nor [0008] refer to classification of a response. The Applicant is, thus,
> unable to identify any teaching within Fletcher of the teachings suggested by the
> Examiner. The Applicant, therefore, requests that the Examiner specifically point

15   out teaching of "*classifying the response received,*" or allow Claim 33, and those
> claims that depend therefrom.

>   Second, it is unclear to the Applicant which parts of Fletcher are thought
> by the Examiner to teach, "*storing the data received in either a referral cache or
> an answer cache based on the classification.*" As discussed in regard to Claim 1,

20   Fletcher does not explicitly teach both an answer cache and a referral cache, and
> such a teaching cannot properly be inferred. As discussed in the paragraph above,
> the Applicant is also unable to identity any teaching of a "classification" within
> the cited art. Thus, the Applicant is unable to identify numerous limitations of
> Claim 33 in the cited text. The Applicant, therefore, requests that the Examiner

25   specifically point out teaching of "*storing the data received in either a referral
> cache or an answer cache based on the classification,*" or allow Claim 33, and
> those claims that depend therefrom.

The Examiner does not appear to have responded to these arguments in the Final Office

30   Action. As these arguments do not depend on Singh, the Applicant requests that

Examiner respond to these arguments in any subsequent rejection.

Applicant believes that all pending claims are allowable and respectfully requests that the Examiner issue a Notice of Allowance. Should the Examiner have questions, the Applicant's undersigned representative may be reached at the number provided.

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Respectfully submitted,

Andreas Gustafsson

10   Date: <u>Oct. 4, 2006</u>

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